XLIV.—Some Observations on the Coleopterous Family Bostrichide. By Charles O. Waterhouse.

HAVING recently had occasion to examine some species of Bostrichidæ, I have noticed a few points to which I think

it advisable to call attention.

First, I observe that all the authors whom I have consulted who venture an opinion on the sexes in the genus Apate have reversed the sexes, not unnaturally supposing that the examples with fulvous hair on the forehead were males. The males have very little hair on the head; the pronotum has a recurved acute tooth at the anterior angle, and the apical segment of the abdomen is rounded. The female has much more hair on the head; the anterior tooth on the pronotum is not prominent, and the apical segment of the abdomen is broadly truncate, fringed with fulvous hair and with a line of hair just before the margin.

Apate terebrans, Pallas, is therefore the female of A. muri-

catus, F. The reverse has been suggested.

Von Harold suggests (Mitth. d. Münchn. ent. Ver. i. p. 119) that Apate Francisca required a new generic name, because Apate is founded on "muricatus," which is also the type of Sinoxylon. But Apate is founded on muricatus, Fabr., and not on muricatus, Linné, the latter being the type of Sinoxylon. It is true that Duftschmidt in describing Sinoxylon gives a reference to Fabricius (as well as to Linné) in naming muricatus as his type; but he gives three lines as the length of the species, which proves that he had the Linnean insect before him.

It is to be regretted that some recent authors have endeavoured to reestablish *Ligniperda*, Pallas (1772), which is founded on wood-boring species generally, belonging to different families. If any species can be said to be the type of his genus it is *capucinus*, which is the type of *Bostrichus*, Geoff. (1762).

Dinoderus substriatus, Steph. (nec Payk.), 1830.

Stephens, in his characters for the genus *Dinoderus*, mentions only five small joints following the two larger basal joints of the antenne. He overlooks the joint next to the club, and on examining his type I am not surprised at his doing so, for (from the position of the antenne and the

pubescence) it is difficult to see. His type has, however, six

joints to the funiculus.

This species appears to be found all over the world. Specimens are in the British Museum from the following localities:—St. Helena, Madeira, Sierra Leone, Bangalore, Ceylon, Penang, Siam, Hong Kong, Java, Celebes, New Guinea, Dorey, Philippine Islands, Brazil, Santarem.

The specimen from Madeira is the type of Rhizopertha bi-foveolata, Wollaston, so named on account of the two approximate foveæ at the base of the thorax which are so characteristic of the species. I think there can be no doubt that it is Apate minuta, Fabr., from New Zealand, but most unfortunately the type is no longer to be found in the Banksian collection *. From Dr. Horn's description of D. brevis (Proc. Amer. Phil. Soc. 1877, xvii. p. 550) it is evident that it is closely allied to minuta, and may even be the same species.

XYLOPERTHA, Guérin, 1845.

Guérin (Bull. Soc. Ent. Fr. 1845, p. xvii) mentions four types for this genus:—Apate minuta, F., truncata, Dej., longicornis, F., and sinuata, F. As minuta, according to the foregoing note, is Dinoderus, Steph., and longicornis has now the genus Tetrapriocera, Horn, for its reception, it would be best, in my opinion, to retain the name Xylopertha for truncata and sinuata &c.

Apate substriata, Payk.

I propose the generic name Stephanopachys for this species, which is too well known to require description, being the Dinoderus of many authors, but not of Stephens.

Rhizopertha rufa, Hope.

I think it very doubtful whether this species should be separated from *R. pusilla*. Typical examples, however, in the British Museum collection are not in sufficiently good condition to enable me to say positively.

It may be useful to point out that *Bostrichus mutilatus*, Walker, is a *Xylopertha* and must be transferred from under *Tomicus* in Gemminger and Harold's Catalogue, p. 2691.

* I have just received a letter from M. Fleutiaux of Paris (who sent me a specimen under the name of minuta, F., to compare with the type), in which he informs me that it is Rhizopertha sicula, Baudi, and Xylopertha foveicollis, Allard.

It is a very common species, having a wide range in the Malay Archipelago. The elytra are a trifle less strongly punctured than in a species which we have under the name Apate lifuana, Montr.; but the two insects are scarcely distinct, and both bear the name "religiosa, Dej."

Sinoxylon fumatum, nitidipenne, and pubescens, Murray,

should be placed in *Xylopertha*.

CÆNOPHRADA, n. gen.

General characters of *Bostrichus*. Antennæ composed of ten joints; first joint elongate, the second one third shorter (but nearly twice as long as broad), the third to eighth joints becoming wider, compressed; the third scarcely as long as broad, the fourth a little longer than broad, narrowed at its base, the fifth, sixth, and seventh short and broad; the eighth joint a little longer than the sixth and seventh together and a little broader at its apex; the ninth shorter than the eighth and narrower, the tenth still narrower, elliptical. The eighth, ninth, and tenth form an elongate club, which, however, is not abrupt, owing to the width of the previous joints.

Quite distinct from all the genera of Bostrichidæ by the

compressed and relatively broad antennæ.

Cænophrada anobioides, n. sp.

Elongata, nigra, convexa; thorace subrotundato, antice sat angustato, scabroso, fulvo piloso; clytris parallelis, confertim fortiter subscriatim punctatis, ad apicem oblique declivis, parte decliva tuberculis depressis rotundatis confertim dispositis ornata.

Long. $15\frac{1}{2}$ millim.

This species has the general appearance of Bostrichus jesuitus, Fabr. The sculpture of the elytra is very similar, but not so coarse, the punctures are still more irregular in form, the interstices more rugulose, narrower, and marked with fine punctures. The apical declivity is rather less abrupt, and instead of being punctured is covered with round, shining, flattened tubercles, which are placed close together. The thorax a little narrower than the elytra, distinctly narrowed in front, more rounded at the posterior angles. The sculpture is nearly the same, but not quite so rough in front, and there are only three prominent teeth visible from above on each side in front.

Hab. N. India (Col. Buckley). Brit. Mus.